

Date: Thursday, 12/20/2007 3:25:21 PM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : STEP WELDMENT
Job Number : 36499	
Estimate Number : 12577	
P.O. Number :	Part Number : D3562042
This Issue : 12/20/2007 S.O. No. :	Drawing Number : D3562 REV D
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : LARGE FAB ASSY	Drawing Revision : D
Previous Run : 35822	Material :
Written By :	Due Date : 1/30/2008 Qty: 5 Um: Each
Checked & Approved By : <u>90 071221</u>	
Comment : Est Rev:A New Issue 06-11-09 JLM	
Est rev B ECN 987 07.10.09 EC	verified by: DD
Est Rev:C ECN1048 07-12-18 DD	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D2622120C	Extrusion
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Qty	Part #	Description	Batch:
1	D2622-120C	Extrusion	<u>B35618</u>

Check Material for any Dents or Defects

SAD 08:01:31 (5)

2.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
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Comment: LARGE FABRICATION RESOURCE 1

1-Cut D2622 extrusion as per Dwg D3562

2-Deburr and bevel ends for welding

SAD 08:01:31 5

3.0	QC5	INSPECT WORK TO CURRENT STEP
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Comment: INSPECT WORK TO CURRENT STEP

4.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
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Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

SAD 08:01:31 (5)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: 58 PAR #:        Fault Category:        NCR: Yes No DQA:        Date:       

QA: N/C Closed:        Date:       

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Drawing Name: STEP WELDMENT

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Part Number: D3562042

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*PK 08.02.06 5*

6.0

D3560042

ARM WELDMENT



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

ARM WELDMENT

Batch: *335296*

*PK 08.02.06 5*

7.0

D3560044

ARM WELDMENT



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

ARM WELDMENT

Batch: *335298*

*PK 08.02.06 5*

8.0

MS20600AD4W5

Blind Rivet



Comment: Qty.: 36.0000 Each(s)/Unit Total : 160.0000 Each(s)

Blind Rivet

batch: ~~335298~~ *11106431*

*PK 08.02.06 5*

9.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1- Drill Rivet holes as per dwg D3562. Touch up alodine

2- Rivet legs using Magnabond as per dwg D3562.

\*\*\*\*\*Ensure to wipe off any excess magnabond \*\*\*\*\*

A/R Magnabond 6398 Batch: *106695*

*PK 08.02.06 5*  
*PK 08.02.06 5*  
*PK 08.02.06 5*

10.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*08/12/07 48692*

11.0

D2734

206 Step Endplate



Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:

Qty/Part Number


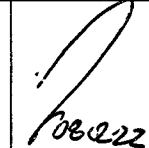
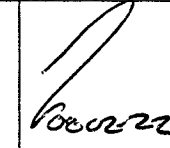
Description Batch

2 D2734

End Cap *336520*

*PK 08.02.19 5*

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
08-02-21	8.0	On Step 8, MS20600 AD4WS (blind Rivet) the total is suppose to be 160 total rivet used not 180. change Quantity of total rivets and per unit to 32		08/02/21			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

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Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Weld end caps as per Dwg D3562& QSI 004. Inspect for foreign objects as per QSI 024.

A/R Aluminum Rod M105058

2-Grind end cap welds flush as per Dwg D3562

*08-02-20 5*

*SAV 08/02/21 (5)*

13.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

*PD 08-02-21 (5)*

14.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*08-02-22 (5)*

*(P-10)*

15.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

*M107005 touch up alodine -*

*FL 08-02-25 (X5)*

*FL 08/02/22 (5)*

16.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Wing Walk as per Dwg D3562 and QSI 005.4.4

Batch: M106874

*FL 08/02/25 (5)*

17.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*mf 08-02-26 (5)*

18.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Assembly Kit

*See WRO 36498*

*FL 08-02-26 (5)*

*5/10/02 (5)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3562-042 PAR #: NA Fault Category: Prod / FAB. ASS. / Loge NCR: Yes No DQA: LD Date: 08/02/26  
 QA: N/C Closed: HJ Date: 08/02/26

NCR: <u>36499</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
080222	14.0	1 step was found to have a tiny burr on the R.C. loose piece of magnet.	<u>[Signature]</u>	Drill a hole as necessary to remove object. Fill hole with weld per QSI 004, and grind flush.	<u>[Signature]</u> 08-02-22	<u>[Signature]</u> 08-02-22	<u>[Signature]</u>	<u>[Signature]</u> 08-02-22

NOTE: Date & initial all entries

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Part Number: D3562042

Job Number:



Seq. #:

Machine Or Operation:

Description :

19.0

QC21

FINAL INSPECTION/W/O RELEASE



5

Comment: FINAL INSPECTION/W/O RELEASE

2008/12/26

Job Completion



2008/12/26

5

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

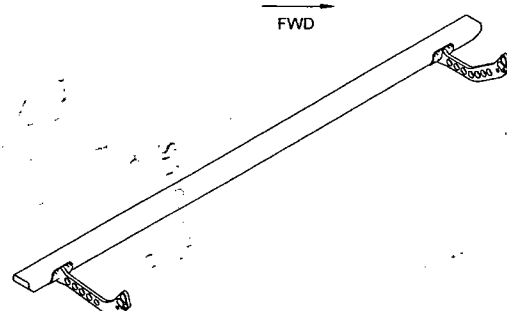
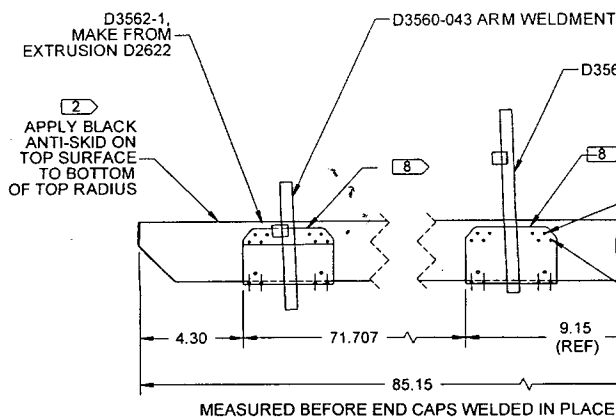
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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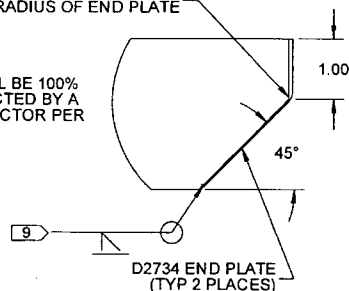




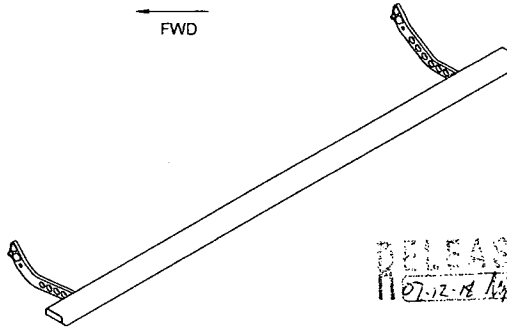
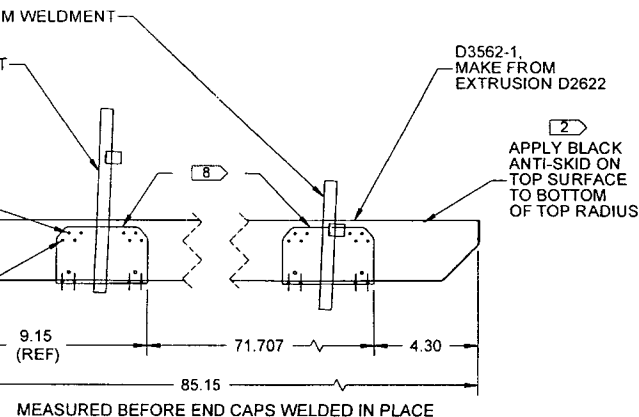
**D3562-041 LH STEP ASSEMBLY**

ROUND CORNER OF EXTRUSION TO MATCH BEND RADIUS OF END PLATE

NOTE: ALL WELDS SHALL BE 100% VISUALLY INSPECTED BY A QUALIFIED INSPECTOR PER DART QSI 004



**TYPICAL STEP END DETAIL  
SCALE 1:2**



**D3562-042 RH STEP ASSEMBLY**

NOTES:  
1) MATERIAL: N/A  
2) FINISH:

- i) CHEMICAL CONVERSION COAT STEP EXTRUSION PER DART QSI 005 4.1 BEFORE ASSEMBLY
- ii) POWDER COAT ASSEMBLY GLOSS WHITE (4.3.5.1) OR GREY SANDTEX (4.3.5.6) OR BLACK SANDTEX (4.3.5.7) OR GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.3
- iii) BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 8.79 lbs
- 8) INSTALL ARM WELDMENTS WITH A LAYER OF MAGNOBOND 6398 BETWEEN THE ARM WELDMENT AND STEP EXTRUSION. FILL ANY TOOLING HOLES WITH MAGNOBOND 6398. CLEAN OFF EXCESS BEFORE POWDER COATING.
- 9) WELDING: PER DART QSI 004

QTY -041	QTY -042	P/N	DESCRIPTION
X		D3562-041	LH STEP ASSEMBLY
	X	D3562-042	RH STEP ASSEMBLY
1		D3560-041	ARM WELDMENT
	1	D3560-042	ARM WELDMENT
1		D3560-043	ARM WELDMENT
	1	D3560-044	ARM WELDMENT
1		D3562-1	STEP EXTRUSION
32	32	MS20600AD4W5	RIVET
2		D2734	END PLATE

D	REMOVE D2808 SPACER NOTE: REDRAWN IN SOLIDWORKS	DC	07.11.16
C	NOW MAGNOBOND, ADD D2808, REMOVE 4 RIVETS	CP	07.06.19
B	ARMS NOW RIVETED TO STEP	CP	07.01.15
A	NEW ISSUE	CP	06.09.26
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	07.11.16		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D3562	REV. D
TITLE STEP ASSEMBLY	SCALE 1:5

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